what is now the dewatered river channel, including recreation, navigation, and other instream beneficial uses. Each of these elements is discussed in the Final EIS/EIR, Chapter 1.0, Section 1.3, Project Needs and Objectives.

Project History

In 1965, Congress authorized the construction of Auburn Dam on the North Fork American River near the City of Auburn. Construction began in 1967 and included a cofferdam, a tunnel through a ridge to bypass the river around the construction area (referred to as the bypass tunnel), excavation for the Auburn Dam foundation (also referred to as the keyway), and removal of a permanent pump station owned by PCWA. Because of concerns over seismic safety, heightened by the 5.7 magnitude (Richter scale) Oroville earthquake of August 1, 1975, construction of Auburn Dam was suspended in 1977.

PCWA Original Pump Station

Prior to the initiation of construction of Auburn Dam, PCWA built a 50 cubic feet per second (cfs) pump station on the North Fork American River to convey PCWA water supplies from its MFP to the Auburn Ravine Tunnel for delivery to PCWA's service area. However, before PCWA's operations began, the pump station was removed by Reclamation to facilitate construction of Auburn Dam. Pursuant to a Land Purchase Agreement with PCWA, described below, Reclamation has since installed a seasonal pump station annually as needed by PCWA to meet water supply demands.

Land Purchase Agreement

Before suspending Auburn Dam construction, Reclamation sought a Land Purchase Agreement with PCWA to acquire canyon lands needed for the Auburn Dam Project. PCWA entered into a Land Purchase Agreement in 1972 with Reclamation under the threat of condemnation. As part of the Land Purchase Agreement, PCWA's 50 cfs pump station was removed to facilitate construction of Auburn Dam subject to Reclamation's provision of an interim pumping facility or alternative water supply until Auburn Dam was completed. As the Auburn Dam Project was designed at that time, water from the reservoir was to flow by gravity into the Auburn Ravine Tunnel to provide PCWA its water entitlements, thereby eliminating the need for a pump station at the American River location. As stipulated in the Land Purchase Agreement:

[Article 11] A *"...the United States will provide a temporary pumping facility in the event the Vendor [PCWA] demonstrates a need for water, to be delivered into the existing tunnel intake structure at the intake portal of the Auburn Ravine Tunnel, or at its option, the United States may provide water from an alternative source, provided delivery is made at a point suitable for its intended use."*

The Land Purchase Agreement obligated Reclamation to deliver up to 25,000 acre-feet annually (AFA) at a rate of up to 50 cfs.

Pursuant to the Land Purchase Agreement, the United States, through Reclamation, has delivered water through the installation and removal of a seasonal pump station on an as-needed basis. The first time PCWA required access to its MFP water rights to meet system demands was during the drought of 1977. In response to PCWA's request for water under the Land Purchase Agreement, Reclamation constructed a pump station capable of delivering approximately 50 cfs using pumps salvaged from PCWA's original pump station. Due to the location of the installation, the pumps have to be removed before winter each year to prevent damage due to inundation from high river flows.

Beginning in 1990, PCWA has required access to its MFP water supply annually to meet its system demands under a variety of operating conditions. Reclamation has responded with the seasonal installation and removal of PCWA's original pumps at the same location as the 1977 installation. However, the seasonal pumps do not fully meet PCWA's water supply requirements, are not reliable, and have become increasingly expensive to install and maintain.

Reclamation can deliver the MFP water supply to PCWA only from approximately April to November. Late-fall, winter, and spring MFP water supplies are not accessible due to the potential for high river flows that can inundate the seasonal pump station. Further, because of limitations on the pumping capacity of the existing facilities (50 cfs) and the timing of seasonal diversions as compared to the pattern of demands, the maximum annual diversion for the seasonal pump station is approximately 19,300 acre-feet (AF). The seasonal pump station no longer permits Reclamation to provide PCWA with a reliable water supply when and where required to meet PCWA's system demands in accordance with the Land Purchase Agreement.

Reclamation Management of Auburn Dam Project Site

Auburn Dam remains an authorized federal project and is considered by some to be feasible. In 1992 and 1996, there were unsuccessful Congressional initiatives to modify and restart the Auburn Dam Project.

Since suspension of Auburn Dam construction in 1977, Reclamation has been managing the Auburn Dam site on an interim basis. Existing site conditions present Reclamation with several resource management issues and opportunities, including public safety, access, and recreation management[1]. In 1994, Reclamation undertook a study to address these issues, together with the installation of a year-round pump station for PCWA. The results were published in a report entitled *Preliminary Concept Plan, Restoration and Management of the Auburn Dam Site* (1996 Concept Plan).

Reclamation's 1996 Concept Plan identified several interests and options related to improving public safety, access, and recreation at the Auburn Dam construction site. The options identified included closure of the bypass tunnel, restoration of the river through the dewatered channel, and recreation access at the site. Upon completion of the 1996 Concept Plan, Reclamation initiated a concerted engineering and environmental planning effort to implement a project based on the findings of the report.

[1] CDPR, through an agreement with Reclamation, provides management of the Auburn SRA activities including the project area.

Early in the planning effort, members of the public and certain interest groups supported inclusion of the 1996 Concept Plan site restoration and river bypass tunnel closure measures. In late 1997, Reclamation undertook a Value Planning Study to further evaluate the options for a year-round pump station, restoration of the Auburn Dam construction site, and tunnel safety consistent with the 1996 Concept Report. However, following publication of the results of the 1997 study, it appeared that critical Congressional support for the project would not be forthcoming if the project included blocking the Auburn Dam construction bypass tunnel or restoring the river channel, because the Auburn Dam remains a federally authorized project. Therefore, during 1998 and into 1999, Reclamation and PCWA concentrated on designing a pump station that would not require the bypass tunnel to be closed or the channel restored.

State of California Interest

In September 1999, the California State Attorney General's Office sent the Secretary of the Interior a letter indicating that, in the Attorney General's view, the Auburn Dam construction bypass tunnel diversion was in violation of the 1992 Central Valley Project Improvement Act (CVPIA), the Reclamation Act of 1902, and California's Public Trust Doctrine. In support of these contentions, the Attorney General's office noted that the river has been diverted with no present or foreseeable beneficial use, to the detriment of the values of the natural resources of the North Fork American River. The claimed legal obligations outlined in the letter provided the impetus and guidance that determined how the American River Pump Station Project evolved. From that point forward, the design included tunnel closure, restoring the river to its channel and allowing pre-dam construction beneficial uses of the river as primary elements of the Proposed Project (Mid-Channel Diversion Alternative).

Closure of the bypass tunnel would remove the existing hazard to river use; CDPR and Reclamation would no longer have need to prohibit public use of this section of the river. Once restored, the river would be expected to be characterized within the Class I to Class III whitewater categories (easy to moderately difficult rating). Because the river conditions created by restoring the river channel through the project area would be appealing to boaters with a wide range of skills, the State of California Resources Agency expressed concern regarding potential public health and safety issues related to such uses. Specific concerns included the current lack of suitable take-out points along the river between the confluence of the North Fork and Middle Fork (upstream) and Rattlesnake Bar at Folsom Reservoir (downstream), a nine-mile stretch. Under certain flow conditions, the upstream extent of Folsom Reservoir creates a two- to five-mile stretch of flat water that would be difficult to paddle, particularly for less experienced boaters. PCWA has arranged with Pacific Gas and Electric Company (PG&E) to make water releases from the Oxbow Powerhouse/Ralston Afterbay that support whitewater boating activities in the Middle Fork American River during summer months. Morning releases reach the North/Middle Fork confluence area by mid- to late afternoon. Without adequate locations to exit the river, boaters could become stranded late in the day or be left without a reasonably accessible river take-out.

Reclamation and the California Resources Agency entered into a Memorandum of Agreement (MOA) (Appendix A of the Draft EIS/EIR) to address these concerns. Reclamation and PCWA coordinated with representatives from the State Attorney General's Office, CDPR and CDFG to develop a pump station project alternative that would incorporate the additional project objectives

related to closing the bypass tunnel and returning river flow to the North Fork American River channel through the project site.

Project Needs and Objectives

PG&E's Drum-Spaulding Project on the Yuba/Bear River and PCWA's MFP on the American River are two sources of water currently available to PCWA to serve areas in western Placer County. PCWA has a contract with PG&E for 100,400 AFA of Drum-Spaulding Project water, at a maximum delivery rate of 244 cfs, to serve Zone 1, encompassing the communities of Auburn, Loomis, Rocklin, Lincoln, Newcastle, Penryn, and parts of Roseville. PCWA also holds existing appropriative rights to divert 120,000 AFA from the MFP under Water Right Permits numbers 13856 and 13858, as authorized by the State Water Resources Control Board (SWRCB). PCWA uses Drum-Spaulding Project water supplies first to meet service area demands. PCWA then uses MFP supplies from the American River to satisfy demands not met by the Drum-Spaulding Project water supplies, or as needed to provide back-up supplies when the Drum-Spaulding project is not operating.

A third PCWA water entitlement is through a water service contract most recently amended in February 2002 with Reclamation. The February 2002 amendment to the contract modified the original maximum water allotment of 117,000 AFA and limits the amount of water available to PCWA to 35,000 AFA prior to completion of Auburn Dam.

The project evaluated in the Final EIS/EIR involves only PCWA's proposed increased diversion of its existing American River MFP water entitlement at the pump station site near Auburn. Separate environmental documentation will be required to evaluate the effects of PCWA's diversion of water under its CVP water service contract with Reclamation.

Auburn Dam Bypass Tunnel Safety

As part of the original Auburn Dam construction work, a cofferdam and bypass tunnel were constructed. The cofferdam was breached by high flows in 1986, depositing millions of cubic yards of debris in the downstream channel. The bypass tunnel remains open and passes the entire flow of the American River at normal flow rates. Due in part to the sediment deposition from the eroded cofferdam, it is common for the downstream end of the tunnel to be submerged while the upper end is open. Although the river portion of the construction site is officially closed to the public, it is known that some people enter the area, and could be seriously injured or killed if they enter the bypass tunnel. Both Reclamation and the State of California believe this safety issue needs to be corrected.

River Restoration

Reclamation and the State of California wish to restore the dewatered reach of the river channel, and to manage the site in a safe and environmentally sound way. Their objectives include restoring the river to a condition that would provide the same biological, hydrologic, and recreation functions, including public use, as it did prior to Auburn Dam construction.

Public River Access

As stated in the MOA between Reclamation and the State of California, the parties believe that an increase in recreational navigation and use of the river in the project area would be a reasonably foreseeable result of the Proposed Project's closure of the bypass tunnel and rewatering of the North Fork American River, and further believe that an appropriate regulated public access to the river to address public health and safety, resource protection, and emergency purposes would be warranted. The MOA stipulates that the public access features would be rustic with minimal site improvements as needed only to serve the stated access and management objectives. The proposed public river access features were developed by CDPR, with input from the lead agencies and CDFG.

Consistent with the terms of the MOA, CDPR provided a preliminary concept for the public river access features to be developed as part of the American River Pump Station Project (Proposed Project). The preliminary features described in the Draft EIS/EIR included a gated entrance and staffed booth, access roadway improvements, parking areas, pedestrian/equestrian trail improvements and sanitation facilities (trash containers and restrooms). The preliminary design was modified during preparation of the Final EIS/EIR. Although most features remain as described in the Draft EIS/EIR, CDPR and the lead agencies have reduced the total number of parking spaces that would be provided at the site by modifying the riverside parking lot to consist of a vehicle turnaround area with only three handicap accessible parking spaces, instead of 20 spaces. Minor improvements would be made to the parking area adjacent to the entrance gate, and CDPR would develop shaded fuel breaks alongside trails and roads. These features are described in detail in the Final EIS/EIR.

These features remain consistent with the Auburn SRA Interim Resources Management Plan, and would involve minimal construction or modifications at the site and would be of "rustic" design. Additionally, these facilities would be totally within the existing Auburn SRA and would not constitute or lead to expansion of the existing boundaries.

CDPR would remain responsible for the management of recreation activities within the Auburn SRA. Reclamation and CDPR would update or modify their management agreement regarding these responsibilities.

Land Purchase Agreement

An overall objective specific to Reclamation is to completely satisfy its obligations to PCWA under the Land Purchase Agreement. This would include alleviating Reclamation of any and all obligations for water delivery, management, operation and maintenance activities of the intake, pumps, and pump station site following completion of construction and start-up of the Proposed Project. PCWA proposes to enter into a contract accepting ownership of such new facilities , and operate them for water supply purposes, thereby relieving Reclamation of its obligation under the Land Purchase Contract.

Expandable Conveyance Facility

Demand projections for PCWA water supplies into the future show a need for an additional 35,000 AFA, above the capacity of the proposed year-round alternatives, by 2030. To maintain an option to meet this projected demand by diverting water from the American River at Auburn, PCWA has identified the objective of designing the project so that it could be expanded from 100 cfs to 200 cfs when, and if, needed in the future. Consistent with its negotiations within the Water Forum[2], PCWA is currently engaged in various engineering studies and contract negotiations designed to advance the option of diverting water from the Sacramento River to meet a portion of its projected future demands as an alternative to the expansion of the American River pump station. However, since a Sacramento River diversion alternative is not currently consistent with PCWA's water rights or CVP entitlements, preserving the opportunity to expand this project (which would be consistent with PCWA's existing water rights) with minimal local environmental disruption is considered prudent planning. Any future expansion (from 35,500 AFA to about 70,500 AFA) would require prerequisite environmental regulatory review and approvals before PCWA could modify the facilities and operate at that level.

An additional future water demand consideration for the project involves the Georgetown Divide Public Utility District (GDPUD). Public Law (P.L.) 101-514 authorizes and directs Reclamation to enter into a long-term water service contract with the El Dorado County Water Agency (EDCWA) for up to 15,000 AFA, of which between 5,000 to 7,500 AFA may be subcontracted to GDPUD. Planning efforts have been initiated and public notices have been issued for the water service contract with EDCWA (*Federal Register* Notice dated June 14, 1998). Although GDPUD will not need additional water supplies for many years, it has requested that PCWA design its intake and pump station so its capacity could be expanded by up to 25 cfs to accommodate GDPUD's future needs.

Project Alternatives

The three alternatives considered in detail in the EIS/EIR are described below, beginning with the No Action/No Project Alternative followed by the Proposed Project and then the Upstream Diversion Alternative. The Proposed Project and Upstream Diversion Alternative are referred to as the "Action Alternatives" as selection of either one would result in development of a year-round facility. Differences between the two Action Alternatives include the location of the diversion/ intake structure, whether or not the Auburn Dam construction bypass tunnel would be closed, and implementation of a restoration plan for the existing dewatered segment of the American River channel at the project site. The Proposed Project would locate a new pump station and diversion/intake facility in the dewatered reach of the river channel, close the bypass tunnel, and restore the river channel. The Upstream Diversion Alternative would locate the pump station at the

[2] The Sacramento Area Water Forum is a diverse group of business and agricultural leaders, citizen groups, water managers, and local governments in Sacramento, Placer, and El Dorado counties. The Water Forum Agreement includes provisions for each of the participating agencies to achieve the plan's two co-equal objectives -- provide a reliable and safe water supply for the region's economic health and planned development to 2030; and to preserve the fishery, wildlife, recreational, and aesthetic values of the lower American River. The elements of the Water Forum Agreement address key regional issues including surface water diversions, groundwater management, dry year water supplies, water conservation, and protection of lower American River resources.

same site as the Proposed Project, but place the diversion/intake facilities upstream of the bypass tunnel inlet; the bypass tunnel would remain open, and the dewatered river segment would not be restored. Both Action Alternatives propose facilities that would provide a year-round MFP water supply to PCWA with a design capacity of 100 cfs for an annual supply of up to 35,500 AF.

Table S-2 provides a comparison of each alternative to the purpose, needs, and objectives for the project. **Table S-3** lists the major features and activities associated with each alternative.

No Action/No Project Alternative

If the lead agencies do not construct a new year-round diversion and pump station facility for the American River diversion, the No Action/No Project Alternative would occur. Under this alternative, Reclamation would continue annual installation and removal of the seasonal pumps at the existing location (**Figure S-5**) and maintain responsibility for the operation and maintenance of the facilities. The seasonal pump station facility includes an inlet pipeline that draws water from a small sump pond approximately 750 feet upstream of the bypass tunnel inlet, four pump canisters (12.5 cfs capacity each), and 2,800 feet of steel pipeline placed above ground from the pump station connected to the Auburn Ravine Tunnel portal (**Figure S-6**).

Under the No Action/No Project Alternative, PCWA would rely upon operation of the seasonal pumps for its MFP water supply; however, within the next few years, PCWA would request that Reclamation install the pumps earlier in the year as PCWA customer demands and overall reliance on the pump station increase. For purposes of analysis in the Draft EIS/EIR, the seasonal pump station under the No Action/No Project Alternative would operate for eight months of the year, April through November. This operational period was selected because it excludes the normal high river flow months of December, January, February, and March, when facilities would be at the greatest risk of flood-related damages.

Under No Action/No Project Alternative operations, PCWA would divert up to 50 cfs during April through November for a total volume of up to 19,300 AFA. Generally, No Action/No Project Alternative operation and maintenance activities would be similar to current activities.

Proposed Project - Mid-Channel Diversion Alternative

The Proposed Project would integrate the water supply intake features and river restoration components into the project design, thereby meeting all stated objectives (Table S-2). The major water supply facilities and public river access features that would be constructed for the Proposed Project are summarized in Table S-3 and shown on **Figures S-7** and **S-8**. The estimated cost for construction of the Proposed Project would be $31 million. The pump station facility would cost approximately $18.1 million, bypass tunnel closure would cost approximately $1 million, and river channel excavation and restoration, including development of the public river access facilities would cost approximately $11.9 million.

Table S-2
Comparison of the Alternatives to Project Purpose, Needs, and Objectives

	No Action/ No Project Alternative	Proposed Project	Upstream Diversion Alternative
Project Purpose			
Provide facilities to allow PCWA to convey its MFP water entitlement to the Auburn Ravine Tunnel to meet demands within its service area.	No	Yes	Yes
Eliminate the safety hazard associated with the Auburn Dam bypass tunnel.	No	Yes	Partially
Restore the dewatered portion of the North Fork American River at the Auburn Dam bypass tunnel.	No	Yes	No
Project Needs and Objectives			
PCWA Water and Conveyance Needs			
Restore PCWA's ability to divert its MFP water supply year-round.	No	Yes	Yes
Provide reliable, year-round diversion capacity of up to 100 cfs.	No	Yes	Yes
Auburn Dam and Bypass Tunnel Safety			
Alleviate public safety hazards from the Auburn Dam construction site.	No	Yes	Partially
River Restoration			
Open the American River to water-based recreation from Highway 49 to Folsom Reservoir.	No	Yes	No
Public Safety River Access			
Provide public safety river access at the American River Auburn pump station site and at Oregon Bar.	No	Yes	No
Land Purchase Agreement			
Alleviate Reclamation of obligations to PCWA under the Land Purchase Agreement.	No	Yes	Yes
Expandable Conveyance Facility			
Provide potential to add future diversion capacity of 25 cfs for GDPUD and an additional 100 cfs for PCWA.	No	Yes	Yes

Table S-3
Summary of Major Features and Activities for the Alternatives [a]

Facility	No Action/No Project Alternative	Proposed Project	Upstream Diversion Alternative
Pump Station			
Pump Station Location	At the existing site, approximately 750 feet upstream of bypass tunnel inlet	Approximately 600 feet northwest of bypass tunnel inlet	Same as Proposed Project
Pump Station Elevation (feet mean sea level (msl))	525	560 (above 100-year flood level)	Same as Proposed Project
Pump Station Configuration: PCWA	4 12.5 cfs pumps (50 cfs)	5 pumps: 2 at 38 cfs and 2 at 17 cfs, one standby pump at 38 cfs	Same as Proposed Project
Expansion Planning: PCWA	None	Additional 100 cfs for a total of 200 cfs	Same as Proposed Project
GDPUD	None	25 cfs	Same as Proposed Project
GDPUD Pipeline to East Side of Canyon	No	Yes	Same as Proposed Project
Diversion/Intake Structure			
Diversion Location	At the existing site, approximately 750 feet upstream of bypass tunnel inlet	Approximately 600 feet northwest of bypass tunnel inlet	Approximately 100 feet upstream of bypass tunnel inlet
Intake Structure Design	Coarse screen diversion from sump pond	Intake structure with fish screens	Intake structure with trash rack and fish screens
Fish Screen	CDFG-approved screen or fish barrier to be placed at mouth of inlet channel	Installation of a CDFG-approved fish screen on the water supply intake structure	Same as Proposed Project
Hydraulic Gradient Control Structures	None	Series of structures constructed from rock, grouted rock, and concrete to create low-gradient hydraulic drop resulting in a rapid navigable by watercraft	Vee-notch weir
Extent of River Channel Modification	100 feet annually	4,000 feet	200 feet

[a] The pump station and associated facility locations evaluated in the EIS/EIR represent the preliminary footprint for the project at this stage in the design process. It is noted that the design continues to be refined and construction of individual facilities would be modified, based on actual site conditions at the time of construction. However, it is anticipated that such adjustments would be minor and the analysis of the project area provided in the EIS/EIR adequately address site-specific resource issues that would be affected by construction and operation of the pump station facility. Any substantial change in the size or placement of project facilities would warrant reconsideration of environmental impacts in a separate document.

Table S-3 (Continued)
Summary of Major Features and Activities for the Alternatives

Facility	No Action/No Project Alternative	Proposed Project	Upstream Diversion Alternative
River Channel Restoration			
Bypass Tunnel Closure	No	Yes	No
Restoration of the Dewatered River Channel	No	Yes	No
Public River Access Improvements	None	Parking, road, and trail improvements, CDPR entrance station, sanitation facilities	None
Construction and Restoration Excavation			
River Channel Excavation Depth	N/A	Up to 20 feet	N/A
Volume of Excavation Material to be Removed	N/A	700,000 to 1 million cubic yards	72,000 cubic yards
Excavation Material Disposal Volume by Location	N/A		
East of Auburn Dam Keyway		90,000 cubic yards	72,000 cubic yards
Bypass Tunnel Inlet		30,000 cubic years	
Bypass Tunnel Outlet		20,000 cubic yards	
Bench, South of Keyway		560,000 cubic yards	
Pipelines			
Pipeline(s) From Intake Diversion to Pump Station			
Length	16 feet	150 feet	550 feet
Diameter	Two at 8 feet each	One at 7 feet	Same as Proposed Project
Pipeline from Pump Station to Auburn Ravine Tunnel			
Length	2,800 feet	1,670 feet	Same as Proposed Project
Diameter	2.5 feet	6 feet	Same as Proposed Project
Pump Station Construction and Facility Access Roads			
Access Road Improvements	Annual re-grading and rehabilitation of all roads	All-weather road improvements:	
Entrance to Pump Station Site		1,460 feet	Same as Proposed Project
To Auburn Ravine Tunnel		1,430 feet	Same as Proposed Project
Pump Station to Diversion		150 feet	600 feet
Power Lines			
Length of New Power Lines to be Installed to the Pump Station and Intake Structure	None	Approximately 650 feet	Approximately 1,050 feet

Table S-3 (Continued) Summary of Major Features and Activities for the Alternatives			
Facility	**No Action/No Project Alternative**	**Proposed Project**	**Upstream Diversion Alternative**
Safety Features			
Safety Features to Warn and Discourage the Public from Entering the Bypass Tunnel	Signs	Tunnel closed, low gradient structures to reduce hazards to in-river users	Buoys, signs, and ropes
Project Design and Construction Cost			
Project Cost	$250,000 to $1 million annually	$31 million	$17 million
Management Responsibility			
Project Ownership, Operation and Maintenance Responsibilities	Reclamation - continued role with seasonal facilities	PCWA - pump station and related facilities Reclamation/CDPR - public river access site maintenance and management	PCWA - pump station and related facilities